

REMARKS

Upon entry of the present amendment, claims 1-4, 6-15, 17-23 and 29-33 are pending in the application. Claims 1, 29, 30, 31, and 32 have been amended in accordance with the requirements of U.S. patent practice.

Claim 1 has been amended to recite that the rheological aid is “for use in an automotive OEM high solids clearcoat,” and comprises at least one additive, wherein the selection is made such as to result in a liquid reaction medium in which the organobismuth catalyst is soluble and wherein the liquid rheological aid is fluid for use in automotive OEM high solids clearcoat having high storage stability. Claims 31 and 32 have been amended to recited that the rheological aid comprises a catalyst “consisting” of one or more organobismuth catalysts.” Claims 29 and 30 have been amended to recite that the urea derivative from the reaction of (a1) and (a2) is present in an amount, based on the rheological aid, of “14.32 to 20 % by weight,” as supported on page, 10, lines 226-29, and Example 1 on page 16 of the application as filed.

Amendments to, cancellation of, and additions to, the claims, as set forth above, are made in order to streamline prosecution in this case by limiting examination and argument to certain claimed embodiments that presently are considered to be of immediate commercial significance. Amendment or cancellation of the claims is not in any manner intended to, and should not be construed to, waive Applicants' right in the future to seek such unamended or cancelled subject matter, or similar matter (whether in equivalent, broader, or narrower form) in the present application, and any continuation, divisional, continuation-in-part, RCE, or any other application claiming priority to or through the present application, nor in any manner to indicate an intention, expressed or implied, to surrender any equivalent to the claims as pending after such amendments or cancellations.

1. **Rejection of claims 30-31 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.**

The Office Action states that the claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In particular, the Office Action states that there is no basis in the originally filed specification for the

lower endpoint "14" of the instant claims 30-31. The Office Action states that Example 1 does not show the use of 14%.

Applicants have amended claim 30 to recite a lower limit of 14.32 weight percent, as specifically supported by Example 1.

Reconsideration and removal of this rejection is respectfully requested in view of the foregoing amendments and remarks.

2. Rejection of claims 1-4, 6-15, 17-23, and 29-33 under 35 U.S.C. §103(a) as obvious over /anticipated by DE 100 42 152 as translated by US Patent No. 7019042 Röckrath's et al. in view of US Patent No. 5064871 Sciangola and with the teachings of US Patent No. 5204401 Anderson, Jr. et al., EP 19230, Heeringa et al., and US Patent No. 4540734 Short et al. being further cited to support the instant rejection, hereafter "Röckrath's," "Sciangola," "Anderson," "Heeringa," and "Short," respectively.

06/10/2011 Office Action at page 2, para. 3. Applicants respectfully traverse. The Office Action states:

The instant claims are directed to the product per se, not the method of making the product. See MPEP 2113 in regard to product by process claims. The instant claims are directed to the compositions per se which appear to substantially encompass the compositions of Rockrath (note the entire disclosure including the claims, particularly claim 10), not the methods of making the compositions. The instant claims do not recite sufficient reaction conditions, such as temperature, ingredient types, sequence of ingredient addition, catalyst amounts, etc. to not encompass the urea thixotropic compositions of Rockrath. Thus, it appears that the compositions of the instant claims overlap those of the patentee. The fact that the crystalline morphology of the ureas of Rockrath's claims are those of the instant claims supports this conclusion. Note claim 10 of Rockrath.

Rockrath does not disclose the instantly claimed bismuth catalysts.

It would have been obvious to one of ordinary skill in the art to catalyze the instantly claimed urea reactions with the instantly claimed bismuth catalysts because Sciangola teaches that the instantly claimed bismuth catalysts are known to catalyze the urea reaction at the abstract, of which "isocyanate reactive compound" includes water and amines per column 2, lines 9-27; column 9, lines 6-12; and the remainder of the document, the catalyzation is expected to give the typical benefits of catalysis such as lowering the activation energy needed to start the reaction and shortening the time of reaction....

As was stated regarding the amount of urea in the previous rejection, the catalyst would remain therein because it is impractical to impossible to remove it completely. Claim 11 of

Rockrath encompasses 0.1 to 10% by weight of the urea crystals, the upper limit thereof falling within the scope of the instantly claimed amounts of urea derivative of "more than 10% by weight" because the upper values of the upper amount of the prior art and the instantly claimed lower limit are within the scope of each other within the claimed mathematical precision and accuracy and within experimental error as one cannot measure with a single molecule accuracy and 10.0 1, for example rounds to the "10%" within the accuracy of Rockrath as well as the accuracy of the instantly claimed "1 0%". In other words, the instant claims read on 9.9 because 9.9 rounds up to 10 within the decimal accuracy of the instantly claimed "10%". Furthermore, Rockrath is not limited to only up to 10%. These are preferred amounts which do not teach away from using more urea in the thickener. Column 4, lines 44-47, particularly "vary widely" and guided by the intended rheological characteristics" is taken as encompassing values that vary widely from the preferred amounts and include the instantly claimed amounts of urea derivatives....

The closeness of the endpoints of Rockrath's preferred and claimed range and the lower limit of the instant claims is such that these two points are obvious over each other.... The applicant's arguments in this regard are therefore not persuasive. The examiner sees not probative showing of unexpected results stemming from any differences between the instant claims and the cited prior art, which are commensurate in scope with the instant claims and the cited prior art. The examiner sees no probative evidence that the full scope of bismuth catalysts encompassed by the instant claims and the cited prior art leads to an unexpected ability to use more urea crystals than used in the cited prior art in the compositions of the instant claims, which is commensurate in scope with the instant claims and the cited prior art, particularly the full breadth of the broad claims. Thus, the amount of urea is not seen as distinguishing the instant claims from the urea thickener compositions of the instant rejection. The applicant's arguments regarding the purpose of the catalyst in Sciangola are noted. However, Sciangola clearly shows the instantly claimed bismuth catalysts to catalyze the isocyanate/isocyanate reactive group reaction, including the amine/NCO reaction, and this catalysis would have been expected in the reactions of Rockrath. This is the reason to expect success in using the catalysts of Sciangola in Rockrath's urea reaction....

It would have been obvious to one of ordinary skill in the art to catalyze the instantly claimed urea reactions with the instantly claimed amounts of the instantly claimed bismuth catalysts because such amounts are encompassed by the broad disclosure of Sciangola, particularly at column 3, lines 58-61 and more particularly at column 3, lines 16-68; column 4, lines 1-68; column 5, lines 1-68; and column 6, lines 1-24 with the higher amounts of lower molecular weight bismuth catalysts disclosed therein and the amounts of polyisocyanate chosen with regard to molar amounts and molecular weights that give the requirements of column 6, lines 4- 16 and the choice of molecular weight and molar amounts of the NCO reactive components thereof being chosen such that the instantly claimed ratio of NCO:Bi of the instant claims 14 and 29 is encompassed, the instantly claimed NCO:Bi ratios would have been expected to catalyze the urea formation of Rockrath per the disclosure of Sciangola and per the definition of "catalyst", which is not

consumed during the reaction. No showing of unexpected results is seen stemming from the instantly claimed NCO:Bi ratio in a manner commensurate in scope with the instant claims and the cited prior art, particularly considering the broad array of reaction conditions not claimed that materially affect the product produced.

(06/10/2011 Office Action at page 13, para. 7, to page 19, line 2.)

Applicants greatly appreciate the detailed basis of rejection from the PTO. However, Applicants respectfully traverse the rejection with regard to the currently pending claims. The present rejection rests on the conclusion that it would have been obvious to use the catalyst of Sciangola in Röckrath's reaction to make a thixotropic agent comprising urea crystals. However, to establish a *prima facie* case of obviousness, there must some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings with a reasonable expectation of success, and the prior art reference (or references when combined) must teach or suggest all the claim limitations. The present combination of references fails to satisfy this standard for several reasons.

First, Sciangola is directed to an very different context than the present invention. Sciangola is directed not to the preparation of a rheological aid, the subject of the present claims, but rather to the preparation of a composition comprising an isocyanate reactive compound and a polyisocyanate. Thus, the present invention results in a rheological aid for use in a coating, whereas Sciangola's composition is a polyurethane coating period. Sciangola provides no teaching of using an organobismuth catalyst for creating a rheological aid for an automotive clearcoat. Likewise, the present invention is not directed to a polyurethane composition taught by Sciangola.

In particular, Sciangola is directed to polyurethane compositions used as adhesives, elastomers, and "two-part" coatings, including cellular polyurethane layers such as used for carpets. See col. 6, lines 1-66, of Sciangola. A two-part coating involves a relatively short pot life and, hence, would not be stable as required by amended claim 1. In fact, Example 3 of Sciangola shows pot lives ranging from 6 minutes to 15.5 hours. Sciangola requires the presence of zirconium octoate to increase the pot life from 6 minutes to 15.5 hours. Sciangola specifically states, "The examples show that the addition of a zirconium carboxylate to a bismuth-catalyzed urea/urethane-forming reaction provide for an extended pot life." Col. 9, lines 7-12 of Sciangola.

Applicants' claimed invention, on the other hand, relates to providing a thixotropic rheological aid containing more than 10% of an already-formed urea derivative that is the reaction product of an isocyanate compound and an amine or water co-reactant with at least one organobismuth catalyst. Applicants' invention is directed to solving the problem of providing increased levels of urea derivative (>10%) in rheological aids in order to avoid the necessity of high levels of rheological aids in the coating composition that undesirably lowers the coating composition's solids content when urea derivatives are used at lower concentrations (see application at page 3, line 7 – page 4, line 8).

Sciangola does not remotely suggest the use of an organobismuth compound as a catalyst for creating a thixotropic rheological aid for use in automotive coatings. In turn, Röckrath is silent with regard to using *any* catalyst to catalyze the reaction of an isocyanate with an amine. The Office Action asserts that one skilled in the art would find it obvious to use the bismuth part of Sciangola's catalyst combination in a urea derivative as part of a rheological aid apparently simply because it is a catalyst that is known to catalyze the reaction of isocyanate and amine. Applicants respectfully disagree.

Applicants respectfully submit that the Office Action has not shown any need for such a catalyst in the rheological agent of Röckrath nor any prediction of the effect of the specific catalyst disclosed by Sciangola. Certainly Sciangola is concerned with very different products, not rheological agents. Röckrath, on the other hand, makes no prediction regarding any particular catalyst. A myriad of catalysts are known for forming polyurethanes from isocyanates, in general, but catalysts are notoriously unpredictable in their relative effects. Applicants have demonstrated that the use of the specifically selected catalyst produced clearcoats that are brilliant, of high gloss, and that are free from surface defects such as runs, as a result of using the claimed rheological aid.

Furthermore, the prevention of “running” or “curtaining” was obtained using a relatively high concentration of the urea derivative, which has been found to be advantageous for high solids clearcoats, in particular. The issue remains how or why one skilled in the art, faced with the problem of how to incorporate more than 10% of urea derivative into a rheological aid without experiencing the excessive thickening that limited prior art rheological aids typically to 10% urea derivative content, would be motivated with any reasonable expectation of success to

use *any* catalyst, much less Applicants' claimed organobismuth catalyst, to catalyze the formation of the urea derivative, is not. That is, Applicants respectfully submit that there would have been no expectation of success. If anything, common sense would have indicated that such an organobismuth catalyst would have accelerate the reaction, undesirably leading to greater viscosity increases, not less. Such an analysis is in accordance with recent Federal Circuit holdings. "Our suggestion test is in actuality quite flexible and not only permits, but *requires*, consideration of common knowledge and common sense." See, e.g., *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006). Even beyond common sense, however, the lack of any expectation of success is further bolstered by Sciangola's teaching at col. 1, lines 64-67 that bismuth catalysts lead to adverse increases in viscosity.

With respect to claims 30 and 31, and putting aside the issue of viscosity increases with organobismuth catalysts for the moment, there is also no teaching or suggestion in the references that the use of an organobismuth catalyst would result in a urea derivative that can be present at a concentration as high as 14.3 wt%. The skilled person in the art is aware that catalysts increase the rate of chemical reactions, including polymer curing reactions in coatings. However there is no teaching or suggestion in the art that a catalyst can actually favorably modify the physical properties of a rheological aid. The Applicants have unexpectedly found that, unlike the rheological aid of Röckrath, when an organobismuth catalyst is used in the preparation of the urea derivative, rheological aids having good processability are possible at higher concentrations of urea derivative of more than 10 wt.%, even preferably at 14.32 wt.%.

Thus, Applicants submit that the combination of references fails to disclose Applicants' requirement that the rheological agent would obtain advantageous properties for use in OEM clearcoats, especially when containing more than 10% by weight of the reaction product of (a1) and (a2).

The Office Action asserts that Applicants' claim limitation requiring more than 10% urea derivative content is not patentably distinguishable from the 10% endpoint of the 0.1-10% range disclosed in Röckrath, and that in any case, Röckrath's disclosure that the urea content can "vary widely" constitutes a disclosure of more than 10% urea content.

Applicants understand the Examiner's position and would agree if it were merely a matter of any composition that might be catalyzed, but the present invention is directed to a rheological

aid (remote from Sciangola) that requires an organobismuth catalyst (remote from Röckrath). In these two respects, these two references are frankly way too far apart to arrive at the present invention as a whole, except in hindsight or extensive trial and error experiments as led to the present invention, given the unpredictability involved with the possible effect of an untried catalyst on a thixotropic rheological agent in the present context.

As to Applicants' argument that such high concentrations of the urea derivative are advantageous, this is clearly supported by both the present application and Röckrath, in which there is no instance of any disclosure of using more than 10% urea content in a rheological aid. As to Röckrath's statement that the urea content can vary widely, this is not inconsistent with Applicants' argument that an amount above 10 wt.% is advantageous in the context of the present rheological agent. There is no disclosure in the Röckrath that could be fairly said to disclose rheological aids with more than 10% urea derivative content as being advantageous, as inherent in Applicants' claimed invention. In fact, Röckrath clearly indicates it is not preferred and differs from the best mode. In fact, Röckrath fairly suggests such higher amounts would be subject to some further testing for its intended use.

For these reasons, Applicants respectfully submit that Applicants' required limitation of "more than 10%" by weight should be given patentable weight in distinguishing the invention as a whole from the proposed combination of references, specifically in the context of the limitation "(a3) at least one organobismuth catalyst." Sciangola teaches away from the use of a bismuth catalyst in the absence of a zirconium catalyst and, very significantly, provides no teaching of its usefulness, in terms of effect, in forming a rheological aid.

As stated in MPEP 2144.05 III, a *prima facie* case of obviousness may be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997). Moreover, as stated in MPEP 2141.02 VI, a prior art reference must be considered in its entirety, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 154 (Fed. Cir. 1983) *cert. denied*, 469 U.S. 851 (1984).

In particular, Sciangola teaches that bismuth catalysts have a generally linear cure rate that can cause an undesirably short pot life. Thus, Sciangola teaches a catalyst combination for use in curing a composition which promotes a slow initial buildup in viscosity in order to maximize pot

life, while simultaneously curing to a tack free state relatively quickly once applied. See col. 1, lines 26-34, of Sciangola. These cure rates are obtained with a combination of a bismuth and a zirconium catalyst. Thus Sciangola teaches away from the use of a bismuth catalyst alone. Moreover, as indicated above, Sciangola teaches nothing regarding the effect of such catalysts on rheological aids or even the desirability of using any kind of catalyst at all in that context.

Thus, Applicants respectfully submit that the context of amended claim 1 needs to be considered, specifically the fact that the product is a rheological thixotropic agent. The PTO has focused on components (a1) and (a2) of component (A) for any reaction involving an isocyanate, and apparently assumes that any catalytic effect would be satisfactory or desirable. This fails to give any weight to the demonstrable results of the present composition, which results were entirely unpredictable in the effect on the product, a thixotropic rheological aid. The effect of component (B) needs to be considered in the invention as a whole.

Importantly, as set forth in amended claim 1, the reaction between components (a1) and (a2) takes place in the presence of component (B). According to the teachings of Sciangola, the bismuth catalyst (a3) is expected to afford a linear rate of cure and consequently a short pot life. In Examples 2-4 of Sciangola, pot lives of only 10, 6, and 8 minutes, respectively, are obtained when bismuth neodecanoate is used as the lone catalyst (col. 7, line 38 to col. 9, line 11). Longer, more acceptable pot lives are only obtained when the bismuth neodecanoate is combined with zirconium octoate and zirconium neodecanoate. In instant Example 1, on the other hand, (a1), (a2), and (B) are stirred for 10 minutes after mixing, already exceeding the pot life of Examples 3 and 4 of Sciangola. Moreover, the composition "showed an extremely pronounced pseudoplastic behavior" and it was "stable on storage and of outstanding processability" (p. 16, lines 22-23). This rheological aid was then used in a clearcoat comprising a methacrylate copolymer and a melamine-formaldehyde resin (page 17), far removed from the polyurethane coating of Sciangola. The high solids clearcoat material in the example of the present application was completely stable using the rheological aid, even in the presence of the organobismuth catalyst.

The references to Heeringa, Anderson, and Short do not cure the above-noted deficiencies in the combination of Sciangola and Röckrath. Apparently those secondary references only provide general information regarding the use of urea crystalline thixotropes (Heeringa), viscosity

and shearing characteristics of a thixotropy (Short and Anderson). 06/10/2011 Office Action pages 11-12.

Furthermore, claim 33 requires a further additive (B) that is a polymeric binder, crosslinking agent, or reactive diluent. Reference is made to Applicants' Example 1 of the instant specification (p. 16). In this example, component (B) is the methacrylate copolymer from Preparation Example 1 set forth in the paragraph spanning pp. 15-16. The copolymer was prepared with 337 parts by weight of hydroxyethyl methacrylate, thus providing a hydroxy functional methacrylate copolymer.

Furthermore, Applicants' claims 29-31 specify a urea derivative content of 14.32 to 20 % by weight, based on the rheological aid, which is clearly not disclosed anywhere in Röckrath. Röckrath discloses rheology control agents comprising urea derivatives, but fails to specifically mention rheology control agents with a urea derivative content above 10% by weight as required by Applicants' claimed invention.

As disclosed in the present application at p. 3, line 23, to p. 4, line 20, prior art rheology control agents such as those disclosed by Röckrath have been limited to a urea derivative content of 10% because higher contents are so thick ("barely fluid") that they are not easily processed in the context of OEM automotive finishing. The requirement of a urea derivative content of at least 14.32% in a rheological aid as set forth in Applicants' claims 29-31 is a full 40% higher than the prior art preferred cap in Röckrath. Moreover, the skilled artisan would not have expected that urea derivative contents of more than 14% in a rheological aid could be achieved through the use of a bismuth catalyst. To the contrary, the secondary Sciangola reference teaches at col. 1, lines 64-67, that bismuth catalyst-based resin systems are subject to rapid viscosity increases, which would tend to teach away from the invention of Applicants' claims 29-31 of using bismuth catalysts to overcome the viscosity-imposed 10% urea derivative content limitation found in the prior art. Accordingly, Applicants submit that their invention as presently claimed in claims 29-31 is further patentable over the cited combination of references. The Office Action apparently proposes apparently that increasing the concentration from 10 wt% to 14 wt% is easily accomplished, and does not provide any unpredictable results. Applicants respectfully disagree for the reasons set forth herein.

According to MPEP 2141 II, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Objective evidence relevant to the issue of obviousness must be evaluated by Office personnel. *Id.* at 17-18, 148 USPQ at 467. Such evidence, sometimes referred to as “secondary considerations,” may include evidence of long-felt but unsolved needs, failure of others, and unexpected results.

The Office Action has argued that Röckrath's disclosure of 10 wt% rheological aid is equivalent to 10.01 and 10.1 wt% rheological aid with rounding, and that therefore a disclosure of a specific concentration is also implicitly a disclosure of higher concentrations, presumably up to 10.5 wt%, which could be rounded to 10 wt%. While such arguments have some weight with respect to the range of claim 1, Applicants respectfully submit that it is not possible to extrapolate concentrations of more than 14 wt% from 10 wt% by rounding. In the disclosure of Röckrath, preferred ranges nested within the range of 0.1 to 10 wt% are provided. These preferred ranges are 0.2 to 9, 0.3 to 8, 0.4 to 7, and 0.5 to 6 wt% (col. 4, lines 44-53). Taken as a whole, this disclosure clearly establishes that Röckrath did not contemplate concentrations above 10 wt% as being predictable as a practical matter in terms of useful or desirable amounts of rheological aid.

The Applicants have summarized work in the field of crystalline urea rheological aids on p. 3, lines 7-21, of the application. No less than 14 patent applications and patents are cited in this passage. All this art is summarized as follows: “[t]hese known, liquid rheological aids, however, contain the crystalline urea derivatives only in an amount of up to 10 % by weight, based on a rheological aid” (p. 3, lines 23-25). Thus others have failed to develop crystalline urea derivative rheological aids at a concentration of greater than 10 wt%, and this failure has resulted in a long-felt, but unsolved need. Failure of others, and long-felt, but unsolved need are two of the secondary considerations of obviousness in the *Graham* decision. A third secondary consideration is expectation of success.

The PTO's argument that since concentrations up to 10 wt% are known, and that higher concentrations are possible, the skilled person would be motivated to prepare higher concentrations with an expectation of success is speculative. The requirement for a determination of obviousness is that “both the suggestion and the expectation of success must be founded in the

prior art, not in applicant's disclosure". (Emphasis added.) *In re Dow Chem.*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988).

If increasing the amount of rheological aid from 10 wt% to 14 wt% is obvious, as alleged by the PTO, the question remains why was the higher concentration not reported in the art until the Applicants' discovery? It is the Applicants position that, in view of the failure of the art to disclose concentrations greater than 10 wt%, that no expectation of success in making this modification is provided. The skilled artisan is aware that in the art of slurries or suspensions of solid particles (e.g. crystalline urea derivative) in liquid media, the fluidity and viscosity of the slurry is highly dependent on the concentration of the solid particles in the liquid medium. The Examiner acknowledges the motivation to make the concentration as high as possible. It is a reasonable assumption that since the motivation exists to use higher concentrations, and since higher concentrations have not been reported in the art prior to the Applicants' disclosure despite this motivation, then higher concentrations must have been found to afford rheological aids with a lack of fluidity or unacceptably high viscosity. Therefore there is no expectation of success in using a concentration of greater than 14 wt%. Moreover, in contrast to the teachings in the art, the Applicants have unexpectedly found that when an organobismuth catalyst is used to make the urea derivative (A), a rheological aid having a concentration of greater than 14 wt% that has "outstanding processability despite the amount of urea derivative (A)", as set forth in Example 1 (p. 16, lines 23-24), can be prepared. The Applicants are not aware of any precedent that suggests that the use of an organobismuth catalyst in the preparation of a crystalline urea rheological aid would make possible higher concentrations of rheological aids.

Furthermore, regarding claims 29-32, these claims have the additional limitation that the rheological agent comprises "(a3) a catalyst consisting of one or more organobismuth catalysts". (Emphasis added.) As such, any co-catalysts that would materially effect the product are excluded from these claims. Sciangola, on the other hand, does not teach organobismuth catalysts alone, as mentioned above. Instead Sciangola teaches "a catalyst comprising a bismuth carboxylate and a zirconium carboxylate". (Abstract, Emphasis added.) In the Detailed Description section, Sciangola teaches, "[t]he catalyst of the first and second aspects of the invention comprises a bismuth carboxylate and a zirconium carboxylate" (col. 3, lines 16-18).

Thus, the composition obtained by combining the disclosures of Röckrath and Sciangola comprises a bismuth catalyst and a zirconium catalyst. Since claims 29-32 exclude zirconium catalysts, the composition obtained by combining Röckrath and Sciangola must be further modified by removal of the zirconium catalyst to arrive at these claims. However, no motivation for removing the zirconium catalyst has been provided. Therefore claims 29-32 are further unobvious over the combined references.

Taken as a whole, it is respectfully submitted that the cited combination fails to provide the requisite motivation for a prima facie case of obviousness.

Reconsideration and removal of the obviousness rejection of claims 1-4, 6-15, 17-23, and 29-33 are respectfully requested in view of the foregoing remarks.

1. Rejection of claims 1-4, 6-15, 17-23, and 29-33 under 35 U.S.C. §103(a)/102(a/b) as obvious over /anticipated by EP 192304 Heeringa et al. in combination with the teachings of US Patent No. 5064871 Sciangola.

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree in regard to the invention of amended independent claim 1. The Office Action states:

Heeringa discloses the instantly claimed amounts of urea crystalline thixotropes at page 2, column 1, lines 36-44, of which "solid particles" indicates crystals because non-crystalline particles, i.e. amorphous particles, can flow, i.e. they are not truly solid, in combination with the instantly claimed additives in liquid form. See the entirety of Heeringa. Heeringa does not disclose using the instantly claimed bismuth catalyst.

It would have been obvious to one of ordinary skill in the art to use the instantly claimed bismuth catalysts to catalyze formation of the urea thixotropes of Heeringa because they are known to catalyze the NCO + NH reaction, as discussed in the above rejections citing Sciangola and the same rationales in this regard as cited above also apply to Heeringa for the same reasons, and Heeringa encompasses catalyzing their later reactions, and since catalyst is not consumed by definition, it will be present to catalyze the later reactions of Heeringa, e.g. page 5, column 8, lines 30-44, noting that the reaction conditions including temperatures and heating times can be varied within Heeringa, e.g. page 3, column 3, lines 58-65 and page 4, column 5, lines 58-62 to give the desired reaction rates/curing rates.

Sciangola was discussed above. Applicants respectfully submit that Heeringa is no more relevant than Rockrath. Heeringa discloses the urea crystalline thixotropes, but not the use of an organobismuth catalyst. Furthermore, it is unclear why the fact that Heeringa discloses "solid particles" of the urea derivative implies any particular concentration. Again, as discussed above, with respect to Sciangola and Rockrath, the fact that bismuth compounds are known to be

catalysts for an NCO + NH reaction, the desirability of using such a catalyst in the context of urea thixotropes remains seriously lacking.

Reconsideration and removal of the anticipation rejection of claims 1-4, 6-15, 17-23, and 29-33 is respectfully requested in view of the foregoing amendments and remarks.

4. **Rejection of claims 1-4, 6-15, 17-23, and 29-33 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 7019042 Rockrath et al. in view of US Patent No. 5064871 Sciangola and with the teachings of US Patent No. 5204401 Anderson, Jr. et al., EP 19230, Heeringa et al., and US Patent No. 4540734 Short et al. being further cited to support the instant rejection.**

Applicants respectfully traverse the nonstatutory obviousness-type double patenting rejection in view of the arguments above in Sections 2 and 3, which are hereby incorporated by reference. Furthermore, Applicants respectfully submit that Rockrath appears to have published more than a year prior to the filing of the present application, so that withdrawal of this rejection is respectfully requested.

CONCLUSION

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing amendments and/or remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,

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